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BULLETIN

OF

PURDUE UNIVERSITY

VOL. IV

OCTOBER, 1903

No. 1

ANNOUNCEMENT

OF THE

Sixteenth Winter School of Agriculture

JANUARY 5 TO MARCH 11, 1904

The Winter School of Agriculture is specially designed for those who feel the need of further preparation for the successful pursuit of Agriculture, but can be spared from home only during the winter months.

Four special courses of study and practice are offered, namely:

- 1. Agriculture.
- 2. Horticulture.
- 3. Animal Husbandry.
- 4. Dairying.

The instruction in all of these courses bears directly on the everyday affairs of the farm. Each course is arranged to meet the needs of a class of students who desire to give attention to a particular *line* of agriculture and the subjects most closely related to it.

As a rule, therefore, it will be best for the individual student to choose *some one* of the courses and complete it

before taking another. The instruction will be given by means of text-books, lectures, recitations and demonstrations accompanied by actual practice of the student in the various laboratories, the effort being made to impart useful and practical training in the subjects under consideration.

The new Agricultural building, with its roomy, well-arranged and well-equipped laboratories and class rooms, provides greatly improved facilities for giving useful instruction in the several lines of study offered.

Each of the above named courses may be completed in a single winter term.

Every student who completes any one of these courses will be awarded a suitable certificate.



LABORATORY OF SOIL PHYSICS.

COURSE IN AGRICULTURE.

This course is designed especially for those who expect to engage in general farming, and who are, therefore, interested in the care of the soil, the principles of cropping, and the handling of domestic animals.

The class-room work, special reading, and laboratory exercises required in this course, will prove practically helpful, not only to those who personally perform or conduct operations in general farming and live stock husbandry, but also to farm proprietors and farm managers.

COURSE OF STUDY.

- Farm Crops. 1.
- 2. Agricultural Physics.
- 3. Agricultural Chemistry.
- Shop Work in Wood. 4.
- Farm Buildings. 5.
- 6 Beef Cattle.
- Dairy Cattle. 7.
- Live Stock Management. 8.
- 9. Care of Farm Animals.
- 10. Examination for Soundness.

DESCRIPTION OF SUBJECTS.

1. Farm Crops. The physical characteristics, adaptations, cultivation, improvement and impoverishment of soils; the application and effects of manures and fertilizers; the principles of cropping and crop rotation; adaptations, culture and uses of staple and special crops, including the various forage and root crops; relations of crops to each other, to the soil and to the live stock; feasible succession of crops, cost of production, etc. M., W. and F., 1st hour. Professor Wiancko and Mr. Fisher.



STUDYING A DRAFT PROBLEM.

2. AGRICULTURAL PHYSICS. Study of problems in draft, including the testing of different forms of eveners (doubletrees) drawing loads on the level and on various inclines, effect of high and low hitch on pulling power of the horse; the behavior of various soils of coarse and fine texture toward water; effects of stirring and packing or tramping soils when wet, on their texture and on their power to conserve soil moisture in dry weather; effects of drainage and of adding humus, sand, lime, etc., on the porosity and retentiveness of soils and on the movement of water through soils. Class room and laboratory exercises on Tu. and Th., 6th, 7th and 8th hours.

Professor Wiancko and Mr. Fisher.

3. AGRICULTURAL CHEMISTRY. Lectures with readings and quizzes on the composition, exhaustion and improvement of soils; the composition, application and use of ma-

nures and commercial fertilizers; the chemistry of foods in their relation to the growth and maintenance of farm animals; the chemistry of dairy products, etc.

Under the head of fertilizers, the excellent collection in the State Chemist's laboratory of the raw materials used in the manufacture of fertilizers will be used for the purpose of illustration. Thousands of samples of fertilizers sold in the State are also available for study and comparison. The effect of commercial fertilizers on the soil, their relation to crops and soils, time of application, source and cost of the component ingredients, method of valuation, home mixing, etc., are some of the points that will receive attention.

Under the head of chemistry of the dairy, will be discussed the composition of milk, butter and cheese, the rela-



CORN JUDGING,

tion of foods to these products, the testing of milk, the effect of chemical preservatives, etc.

The above are a few of the points taken up in this course. It is believed that the student desiring information as to the best and most up-to-date methods of farming will find this work both instructive and profitable.

Professor Goss.

4. Shop Work in Wood. Two exercises each week in the University wood shop in planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and in other work with common carpenter's tools. Tu. and Th., 1st, 2d and 3d hours.

Instructor Nve.

- 5. FARM BUILDINGS. Location, grouping, planning and sanitary construction of farm buildings; general and special purpose barns; kinds, cost and relative merits of round, square, wood, brick or cement silos; a modern farm dwelling and its heating, ventilation, lighting and plumbing. Lectures and readings with practice in drawing plans of buildings. F., 6th and 7th hours. Professor Latta.
 - 6. BEEF CATTLE.
 - 7. Dairy Cattle.
 - 8. LIVE STOCK MANAGEMENT.
 - 9. CARE OF FARM ANIMALS.
 - 10. Examination for Soundness.

See Course in Animal Husbandry.

11. *Iron Forging. Two exercises each week in iron forging, giving practice in heating, bending, drawing, upsetting, welding, annealing, case-hardening, etc. Tu. and Th., 6th, 7th and 8th hours. Instructor Nicholas.

Former students in the Course in Agriculture may substitute, for any subjects previously taken, those of any other course so far as the schedule of hours will permit.

Open only to those who have previously taken the other subjects announced for these hours.



ORCHARD SPRAYING.

COURSE IN HORTICULTURE.

This course is arranged especially for those who intend to engage in commercial orcharding, small fruit growing or gardening, and also for those who wish to qualify themselves for positions on farms where these industries are carried on.

COURSE OF STUDY.

- 1. Fruit and Vegetable Growing.
- 2. Commercial Orcharding.
- 3. Market Gardening.
- 4. Problems in Marketing Fruit.

- 5. Landscape Gardening.
- 6. Forestry.
- 7. Economic Entomology.
- 8. Economic Botany.
- 9. Vegetable Parasites.
- 10. Farm Sanitation.
- 11. Horticultural Laboratory.
- 12. Farm Crops.
- 13. Farm Buildings.
- 14. Shop Work in Wood.

DESCRIPTION OF SUBJECTS.

1. Fruit and Vegetable Growing. Twenty lectures on the principles involved in fruit and vegetable growing, including propagation, location of the orchard and garden, care and cultivation, crossing and hybridizing, pruning, thinning and harvesting. M., Th. and F., 4th hour.

Professor Troop.

2. Commercial Orcharding. Five lectures on the commercial side of fruit growing, including the proper care and management of, and varieties suitable for, a commercial orchard. M., Tu., W., Th. and F., 4th hour.

C. M. Hobbs, Bridgeport, Ind.

- 3. Market Gardening. Five lectures on truck farming from a commercial standpoint, including preparation of the soil, varieties suitable for market, care and cultivation, harvesting, marketing, etc. M., Tu., W., Th. and F., 4th hour.

 U. M. Stewart, Madison, Ind.
- 4. PROBLEMS IN MARKETING FRUIT. Five lectures on harvesting, packing, shipping and storing of fruits. M., Tu., W., Th. and F., 4th hour.

E. H. Williams, Indianapolis, Ind.

5. Landscape Gardening. Seven lectures on laying out and ornamentation of the home and school grounds, public parks and cemeteries. W., 4th hour. Professor Troop.

6. Forestry. Seven lectures in the following topics: The meaning of forest and forestry; wood lots on farms and the relation of silviculture to agriculture and horticulture; the forest canopy, floor and wood-mass; the work of the forest in forming, improving and fixing soil; the forest as a conservator of moisture; the formation of forests; the care of forests; the economic importance of forests; the utilization of forest refuse.

The subjects will be treated with especial reference to conditions in Indiana and the central west, and will be as practical as the length of the course will permit. Tu., 4th hour.

Professor Coulter.

7. Economic Entomology. Ten lectures with reading and quizzes, on insects in their relations to the farmer and fruit grower; description of species; their habits and life history; whether injurious or beneficial; rate of increase and means of holding them in check. M., 2d hour.

Professor Troop.

- 8. ECONOMIC BOTANY. Lectures, readings and quizzes on plant life, including, among others, the following subjects: The plant body, its several parts and their uses; plant foliage, its arrangement, modifications and uses; pollination, its purpose and how effected, and how weed migration may be checked; the food of plants, sources and kinds of food, and how plants obtain their food; the germination of the seed, conditions of germination, changes in germination and the practical lessons they teach; botanical relationships of farm crops, joint action of the clovers and their parasites in renewing the nitrogen supply of the soil. W., 2d hour.
- 9. VEGETABLE PARASITES. Lectures and quizzes on the diseases of plants and their causes; smut of corn and oats; ergot of rye and timothy; wheat rust; diseases of the potato; fleshy fungi, etc. F., 2d hour. First half term.

Professor Arthur.

10. FARM SANITATION. Lectures and quizzes on cleanliness of stables, bad drainage and diseases, water supply for

the farm, sewage disposal on the farm, general hygienic rules for the farmer, etc. F., 2d hour. Second half term.

Professor Burrage.

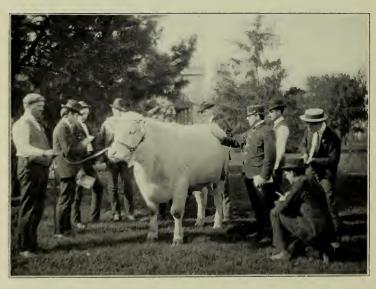
11. Horticultural Laboratory. Twenty exercises in seed germination, regulation of moisture, requirements of temperature, preparatory treatment of seeds; potting, layering, cuttings, kinds of cuttings, tuber cuttings, root cuttings, stem cuttings, leaf cuttings. Grafting: bud grafting, crown grafting; inarching, etc. M. and W., 6th and 7th hours.

Professor Troop.

- 12. Farm Crops.
- 13. FARM BUILDINGS.
- 14. Shop Work in Wood.

See Course in Agriculture.

Former students in the Course in Horticulture may substitute subjects in any other course for those previously taken, so far as the daily program will permit.



JUDGING FAT STOCK.

COURSE IN ANIMAL HUSBANDRY.

The work in Animal Husbandry is intended to give the student a knowledge of the various classes and breeds of live stock and of the methods of registering stock, pedigrees, etc.; also a practical knowledge of such principles of breeding and feeding as can be clearly understood and made use of in actual practice on the farm. It further offers sufficient practice in scoring and judging the various classes of animals to enable the student to be discriminating in the selection of animals for breeding and feeding. It will also familiarize him with the methods of judging animals, as practiced in the show ring, as well as with the best up-to-date methods of care and management.

The work will be of the most practical nature and suited to the needs of every young man who expects to handle live stock for breeding or feeding purposes, whether in a large or small way.

The work will be supplemented by occasional visits to prominent herds and flocks, for the purpose of judging different types of animals, studying methods of breeding and feeding, barns, etc.

COURSE OF STUDY.

- 1. Beef Cattle.
- 2. Dairy Cattle.
- 3. Swine.
- 4. Sheep.
- 5. Horses.
- 6. Live Stock Management.
- 7. Care of Farm Animals.
- 8. Examination of Horses for Soundness.
- 9. Farm Crops.
- 10. Farm Buildings.
- 11. Agricultural Chemistry.



JUDGING BREEDING STOCK.

DESCRIPTION OF SUBJECTS.

- 1. BEEF CATTLE AND BEEF. The history, development and characteristics of the breeds suitable for beef production; comparison of methods of beef production; by-products of the feed lot and slaughter house, and their relation to cost of beef; cuts of beef, quality, cost, etc. Lectures, readings and practice in judging. First half term, M. and F., 2d and 3d hours, and W., 2d hour. Professor Skinner.
- 2. Dairy Cattle. A study of the various breeds of cattle adapted to dairy purposes; history and characteristics, lectures, readings and judging. Second half term, M. and F., 2d and 3d hours, and W., 2d hour. Professor Skinner.

- 3. Swine. A study of the types and breeds of swine and the most successful methods of growing and marketing; selection and care of breeding stock, and judging. Lectures, readings and practice. First half term, Tu. and Th., 2d and 3d hours.

 Professor Skinner.
- 4. SHEEP—MUTTON AND WOOL. A study of the types and breeds of sheep, characteristics, adaptation; quality and value of mutton cuts; grades and classes of wool; methods of mutton and wool production; feeding and breeding. Lectures, readings and practice in judging. Second half term, Tu. and Th., 2d and 3d hours.

Professor Skinner.

5. Draft Horses. Their history, development and characteristics of breeds; market types and classes and a study of the market. Lectures, readings and practice in judging. First half term, Tu. and Th., 6th, 7th and 8th hours.

Professor Skinner.

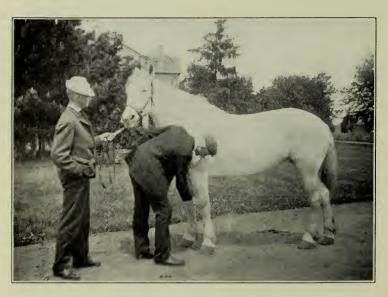


JUDGING DRAFT HORSES.

HEAVY HARNESS AND LIGHT HORSES. The breeds adapted to coach, carriage and driving purposes; their history, characteristics, etc., markets and their demands. Lectures and practice in judging. Second half term, Tu. and Th., 6th, 7th and 8th hours.

Professor Skinner.

- 6. LIVE STOCK MANAGEMENT. A practical study of breeding, feeding, care and management of the various classes of live stock. Lectures, readings, text-book work. M., W. and F., 8th hour. Professor Skinner.
- 7. Care of Farm Animals. This work embraces three exercises per week, two lectures and a clinic. The object is to teach the stockman the means of prevention of disease and the care of sick animals. At the clinic the student is



EXAMINATION FOR SOUNDNESS.

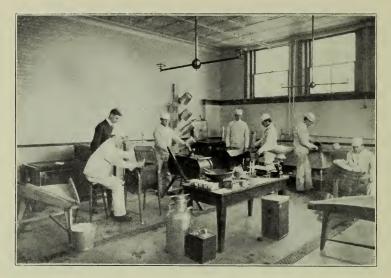
given an opportunity to observe many surgical operations. Fu. and F., 4th hour. Clinic, W., 6th and 7th hours.

Dr. Craig.

- 8. Examination for Soundness. Instruction in this subject is given by lectures and demonstrations, and embraces two exercises per week. The important unsoundnesses and blemishes are discussed. At the clinic the student is given an opportunity to examine unsound horses and note the character of the different lamenesses and blemishes. M., 6th and 7th hours, and W., 4th hour. Dr. Craig.
 - 9. FARM CROPS.
 - 10. FARM BUILDINGS.
 - 11. AGRICULTURAL CHEMISTRY.

See Course in Agriculture.

Former students in the Course in Animal Husbandry may, so far as the daily schedule will permit, select subjects in any other course in place of those previously taken.



ONE OF THE DAIRY LABORATORIES,

COURSE IN DAIRYING.

The work in Dairying is planned with special reference to the creamery butter maker on one hand, and the producer of milk for creamery, cheese factory, shipping, farm butter making and retail delivery on the other hand.

The dairy department is equipped with power separators, combined churns and workers, box churn and table worker, cream ripeners, Babcock testing outfits, tools for pipe fitting and practice in lining up shafting and machinery, belt lacing, etc.

For the farm dairy work the equipment includes the leading makes of farm-size separators, churns, butter workers, prints, aerators, bottle fillers and utensils necessary for such work.

Each afternoon will be occupied with some kind of practical work in the laboratories.

Students will be expected to take either the work outlined for creamerymen, or that for producers, except by special arrangement.

DAIRY AND CREAMERY WORK.

SUBJECTS COMMON TO BOTH.

- 1. Milk and Its Products.
- 2. Testing.
- 3. Dairy Bacteriology.
- 4. Dairy Problems.
- 5. Starters and Cream Ripening.
- 6. Butter Scoring.
- 7. Diseases of Dairy Cattle.
- 8. Farm Crops.

DAIRYMEN.

- 9. Barns and Silos.
- 10. City Milk.
- 11. Agricultural Chemistry.
- 12. Dairy Cattle.
- 13. Dairy Laboratory.

CREAMERYMEN.

- 14. Creamery Management.
- 15. Boilers and Engines.
- 16. Creamery Bookkeeping.
- 17. Creamery Repairs.
- 18. Creamery Laboratory.

DESCRIPTION OF SUBJECTS.

1. Milk and Its Products. This subject deals with the principles involved, conditions affecting and the methods of securing economical creaming, centrifugal separation, cream ripening, starters, churning, and preparation of butter for market. M. and W., 2d hour. First half term.

Professor Van Norman.



TESTING MILK AND CREAM.

2. Testing Milk and Cream. Principles and use of Babcock tests on farm and in creamery. Acid test in cream ripening, lactometer for adulteration. Composite sampling and testing of milk and cream. Tu. and Th., 2d hour.

Professor Van Norman.

- 3. Dairy Bacteriology. Influence of bacteria in cream ripening, and cleanliness in care of milk from cow to finished product. Lectures and laboratory experiments. Tu. and Th., 3d hour. First half term. Professor Burrage.
- 4. Dairy Problems. Miscellaneous exercises in figuring percentage and yields of butter fat; comparative economy of separator versus other systems of creaming; determining losses on farm and in factory. F., 2d hour. First half term. Professor Van Norman.

5. STARTERS AND CREAM RIPENING. Particular emphasis will be laid on the propagation and use of home-made and commercial starters, and the ripening of cream. Each student will have daily practice in preparation of starters. Many starters will be carried from day to day, giving opportunity to cultivate the taste and study results of their use in cream ripening. Lectures Tu. and Th., 1st hour.

Mr. Slater.

6. BUTTER SCORING. Practice in scoring different grades of butter to familiarize the student with market demands; causes and prevention of faults. S., 1st hour.

Mr. Slater.

- 7. DISEASES OF DAIRY CATTLE. Lectures on the means of prevention as well as the treatment of the common diseases of dairy animals. Tu. and Th., 3d hour. Second half term.

 Dr. Craig.
 - 8. FARM CROPS. See Course in Agriculture.
- 9. Barns and Silos. Arrangement of stable, special precaution for cleanliness and ventilation. Construction of silo. Cement floors. Tu. and F., 4th hour. First half term.

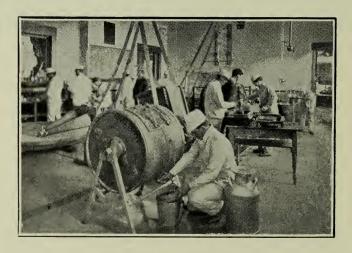
 Professor Van Norman.
- 10. CITY MILK SUPPLY. Care necessary to secure healthful products. Methods of handling and shipping milk; of producing sanitary, certified, pasteurized, standardized and modified milk. Tu. and Th., 4th hour. Second half term.

 Professor Van Norman.
- 11. AGRICULTURAL CHEMISTRY. See course in Agriculture.
 - 12. Dairy Cattle. See Course in Animal Husbandry.
- 13. Dairy Laboratory. Each afternoon will be given to practice in the laboratories; separating, churning, testing, etc., using apparatus suited to the needs of the average farm.

- 14. CREAMERY MANAGEMENT. Organization of Creamery companies, location, construction, equipment and arrangement of creamery, including daily routine of work, determination of size and speed of pulleys, etc. 7th hour, every day, first four weeks.

 Mr. Slater.
- 15. Boilers and Engines. Discussion of principles, care and handling of boilers and engines, operation of injectors and pumps, setting of valves, commercial use of fuel. 7th hour, every day, three weeks.

 Mr. Slater.
- 16. CREAMERY BOOKKEEPING. Instruction and practice in the keeping of such accounts as are necessary in a creamery, apportioning of dividends, making up pay rolls, milk sheets, checks, etc. 8th hour, every day, three weeks.
- 17. CREAMERY REPAIRS. Practical work in lining, shafting, lacing belts, pipe fitting. During laboratory hours.



THE CREAMERY LABORATORY.

18. Creamery Laboratory. Operation of power separators, combined churns, ripening of cream, preparation of starters, packing of butter for market. Every day, four hours.

Former dairy students and those desiring some special line of work will be accommodated as far as possible.

MATERIAL EQUIPMENT.

- 1. Buildings, (a) The Agricultural Building, recently completed, is a modern structure, containing two stories above a high, well-lighted basement, for the exclusive use of the School of Agriculture. This building contains offices. class-rooms, veterinary laboratory, assembly and other rooms, special library and reading room, on the first and second floors. The basement contains roomy, well-lighted, well-arranged and well-equipped laboratories for work in Soil Physics, Horticulture, Farm Dairving, Milk Testing and Creamery work. Also, cold storage rooms for the curing of cheese, preservation of fruits, etc. (b) The Experiment Station, with its chemical, botanical and veterinary laboratories, green houses and library of special works and reports. (c) Farm barns, including feeding barn. horse and storage barn, dairy building, tool barn and piggery.
- 2. Laboratories. (a) A suite of rooms fully equipped with modern machinery and apparatus for giving instruction and practice in the best methods of farm dairying and creamery work, including milk separation, churning, working and packing butter, testing milk for per cent. of butter fat. (b) Rooms well equipped with the most modern apparatus for the study of problems in Soil Physics, with special reference to the movement of water in soils, retention of soil moisture in dry weather, etc. (c) A room well fitted with apparatus for instruction and practice in bud-



UNIVERSITY FARM BUILDINGS.

ding, grafting, making cuttings, potting, layering and other operations employed by the horticulturist and gardener. Also for the study of germination of seeds, propagation of plants, etc. (d) Room for practice in judging and scoring of the different classes and breeds of live stock, and examination of horses for soundness. (e) Room for veterinary clinics, including the performance of simple surgical operations before the class.

3. A Farm of one hundred and thirty acres, besides the college campus. This is devoted to the growing of farm, orchard and garden crops, and to various field experiments, including the testing of varieties, methods of culture, manures and fertilizers, special crops, systems of rotation, etc.



EXPERIMENTAL FIELDS-UNIVERSITY FARM.

4. LIVE STOCK. (a) Cattle—a herd consisting of shorthorns, Herefords, Holstein-Friesians and Jerseys. (b) Sheep—two breeds, Shropshire and Rambouillet. (c) Swine—four breeds, including Poland China, Berkshire, Chester White and large Yorkshire.

GENERAL INFORMATION.

ADMISSION. Applicants for admission should be at least sixteen years of age and have a fair common school education. No entrance examination is required. Experience has shown that persons at twenty or more years of age, who have had practical experience in farming, do the best work, derive the most good from the course and are best pleased with what they learn.

REGISTRATION. Students will register and secure rooms and board on Monday, January 4th, and recitations will begin at 8 a. m., Tuesday, January 5th, continuing without intermission until the close of the term on March 11th. Those who expect to attend should promptly fill out and return the enclosed application blank. Students should come direct to the office of Professor W. C. Latta, in the Agricultural Building, and register before engaging rooms or purchasing books.

Expenses—

Tuition is free to residents of Indiana. Non residents will pay a tuition fee of \$10.

All students will pay a laboratory fee of \$5 to cover in part the expense of material used in laboratory courses.

An incidental and library fee of \$10 is chargeable to students who are not exempted from same by an appointment to a free scholarship. (See below.)

OTHER EXPENSES—

Books will cost from \$5 to \$10. Furnished room, \$1 to \$1.25 per week. Table board, \$3 per week. A fair estimate of expense for an Indiana student follows:

Room rent (10 weeks at \$1 per week)\$	10	00
Board (10 weeks at \$3 per week)	30	00
Incidental fee (for those without scholarships)	10	00
Laboratory fee	5	00
Books (largely optional)	10	00
Visits of inspection and miscellaneous expenses (op-		
tional with the student)	15	00
Total \$	80	00

Two free scholarships are offered to each farmers' organization in Indiana. This includes agricultural and horticultural societies, county and district fair associations, farmers' clubs, granges, farmers' institutes, etc. Candidates for free scholarships should be elected at a meeting of the organization, provided the same is held before the opening of the term. These scholarships, which are open alike to young men and women, are good in any of the Agricultural Courses, but are not ralid unless applied for before matriculation in the University. They will effect a saving to the student of \$10 per term in the Winter Course and of \$25 to \$35 per year in the two-year and four-year Courses in Agriculture.

THE AGRICULTURAL SOCIETY, conducted by students, meets weekly. It gives opportunity for drill in the discussion of many practical and economic questions, and thus admirably supplements the work of the class room and laboratory. The training in speaking and writing which this society affords is invaluable to those who desire to be helpful and influential factors in the home community.

For information concerning Agricultural Courses, address,

PROFESSOR W. C. LATTA, LaFayette, Indiana.

For general information concerning the University, address,
WINTHROP ELLSWORTH STONE.

President Purdue University.

LaFayette, Indiana.

INSTRUCTORS IN THE SCHOOL OF AGRICULTURE.*

THE PRESIDENT OF THE UNIVERSITY.

- WILLIAM CARROLL LATTA, M. S., Professor of Agriculture.
- JAMES TROOP, M. S., Professor of Horticulture and Entomology.
- ARTHUR GOSS, M. S., A. C., Professor of Agricultural Chemistry.
- HUBERT EVERETT VAN NORMAN, B. S., Associate Professor of Dairying.
- JOHN HARRISON SKINNER, B. S., Associate Professor of Animal Husbandry.
- ROBERT A. CRAIG, D. V. M., Instructor in Veterinary Science.
- ALFRED THEODOR WIANCKO, B. S. A., Associate Professor of Agriculture.
- RICHARD M. HAMER, Assistant in Animal Husbandry.
- H. N. SLATER, Assistant in Creamery.
- MARTIN LUTHER FISHER, Assistant in Agriculture.
- STANLEY COULTER, Ph. D., Professor of Biology.
- JOSEPH CHARLES ARTHUR, D. Sc., Professor of Vegetable Physiology and Pathology.
- PERCY NORTON EVANS, B. S., Ph. D., Professor of Chemistry.
- ERVIN SIDNEY FERRY, B. S., Professor of Physics.
- EMMA MONTGOMERY MCRAE, A. M., Professor of English Literature.

^{*}Not including instructors exclusively engaged in the Schools of Engineering, Science and Pharmacy.

- THOMAS FRANCIS MORAN, Ph. D., Professor of History and Political Economy.
- ERNST J. FLUEGEL, Ph. D., Professor of German.
- PAULINE MARIOTTE-DAVIES, Ph. D., Professor of French.
- CLARENCE ABIATHAR WALDO, Ph. D., Professor of Mathematics.
- KATHERINE ELIZA GOLDEN, M. S., Assistant Professor of Biology.
- JAMES HENRY RANSOM, Ph. D., Associate Professor of Chemistry.
- SEVERANCE BURRAGE, B. S., Assistant Professor of Sanitary Science.
- CHAS. M. SMITH, B. S., Assistant Professor of Physics.
- CAROLINE ERNESTINE SHOEMAKER, M. S., Instructor in English.
- EDWARD HATTON DAVIS, B. S., A. B., Instructor in Economics and History.
- JOHN HEISS, A. M., Instructor in German.
- JAMES DAVID HOFFMAN, M. E., Assistant Professor of Engineering Design.
- ALPHA P. JAMISON, M. E., Assistant Professor of Mechanical Drawing.
- WM. McEWAN NYE, B. S., Instructor in Practical Mechanics.
- EDWARD NICHOLAS, Assistant in Forge Room.
- EDWARD MAHIN, B. S., Instructor in Chemistry.
- CHARLES I. FREEMAN, Physical Director.
- BLANCHE ANNIS MILLER, Acting Librarian.



GENERAL STATEMENT CON-CERNING PURDUE UNIVERSITY.

Purdue University is beautifully and healthfully located about one mile from the center of the city of LaFayette, amid surroundings and influences favorable to study. The general tone of the institution is manly and moral. The students' literary and scientific societies, the Young Men's and Young Women's Christian Associations, a well equipped gymnasium and excellent athletic field, all contribute toward developing and maintaining healthy minds and hodies

Tuition is free in all courses to residents of Indiana, and only moderate fees are charged to cover the actual cost of materials supplied in the various laboratories. Living expenses are low, ranging from \$15 to \$20 per month for board and room.

The requirements for admission to the Freshman class in all four-year courses include a good knowledge of English Grammar and Composition, Arithmetic, Algebra through quadratic equations, Plane Geometry, United States History and Descriptive Geography. Graduates from commissioned high schools are admitted without examination.

Advanced standing in any class will be granted to those who are able to prove their qualifications.

Graduate and special courses are offered to graduates of other higher institutions of learning who desire to work for advanced degrees or who wish to pursue some special line of study and are properly qualified. Such students will find in the well equipped laboratories and the encouragement given to research the conditions favorable to special and advanced study.

For further information or for catalogue, address,

PRESIDENT PURDUE UNIVERSITY.

LaFayette, Ind.